



## **Attenuation, source parameters and site effects of SH waves in Taiwan**

Shun-Chiang Chang (1) and Kuo-Liang Wen (2)

(1) National Central University, Department of Earth Sciences, Taoyuan City, Taiwan (fcuiii@gmail.com), (2) National Central University, Department of Earth Sciences, Taoyuan City, Taiwan (wenkl@earth.ncu.edu.tw)

Generalized inversion technique (GIT) (Castro et al., 1990) was used to derive SH-wave in the frequency range 0.2–25 Hz (interval 0.1 Hz). The inversion results can find attenuation characteristics, earthquake source parameters and site amplification functions. The characteristics of the site amplification are referred to horizontal-to-vertical (H/V) Fourier spectral ratios of microtremor for a referent rock site. The SH-wave from 28 earthquakes with magnitude ranging from  $M_L$  5 to 7, of 1319 earthquake records at 146 TSMIP strong motion stations in Jianan Plain, southwestern Taiwan are used in this analysis. The SH-wave quality factor  $Q(f)$  is estimated as  $52.83 f^{0.77}$  for  $0.2 \leq f \leq 25$  Hz. The stress drops can be found from source spectra by using the omega-square model. The results of site amplification are similar to horizontal-to-vertical spectral ratio of the microtremor which have clearly and similar predominant peaks.